

Notice of Allowability

Application No.

10/821,508

Examiner

Rodney G. McDonald

Applicant(s)

NOZAWA ET AL.

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to After Final Amendment filed 3-1-07.
2. ☒ The allowed claim(s) is/are 6,7,9,12-16,26,27 and 33-36.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 11-7-06
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


RODNEY G. MCDONALD
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In the specification:

Page 1, line 1, please insert the following:

--This application is a divisional application of U.S. Patent Application No. 09/952,445 filed September 12, 2001, now U.S. Patent No. 6,783,643--

The following is an examiner's statement of reasons for allowance:

Claims 6, 7, 9, 12-16, 26 and 27 are allowable over the prior art of record because the prior art of record does not teach a manufacturing method of a photo mask blank comprising setting the substrate in a horizontal position where a surface of the substrate on which the thin film is formed and a surface of a sputtering target are in opposed position with a center axis of the target deviating from a center axis of the substrate surface and sputtering the target while rotating the substrate around its center axis so as to form the thin film, wherein the forming of the thin film is controlled so as to make the rotation number during the film formation an integer.

Claims 33 and 34 are allowable over the prior art of record because the prior art of record does not teach a manufacturing method of a photo mask blank comprising setting a substrate in a horizontal position where a surface of the substrate on which the

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thin film is formed and a surface of a sputtering target are in opposed position with a center axis of the target deviating from a center axis of the substrate surface, and sputtering the target while rotating the substrate around its center axis so as to form the thin film, wherein, when the substrate has a size of one side 152 mm of square, an offset distance is 200 to 350 mm, and T/S value is 200 to 380 mm, the offset distance being a distance between a center axis of the substrate and a straight line passing through a center of the target and extended in parallel to the center axis of the substrate, and T/S value being a vertical distance between the target and the substrate.

Claims 35 and 36 are allowable over the prior art of record because the prior art of record does not teach a manufacturing method of a photo mask blank comprising setting a substrate in a horizontal position where a surface of the substrate on which the thin film is formed and a surface of a sputtering target are in opposed position with a center axis of said target deviating from a center axis of the substrate surface, and sputtering the target while rotating the substrate around its center axis so as to form the thin film, wherein the rotation of the substrate is controlled so as to make the rotation number during the film formation an integer by detecting a rotation angle from the start up to the end of the film formation.

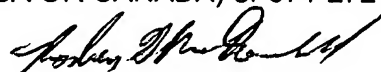
The claims distinguish over Tu et al., Yaminishi et al. and Satiوشي because the prior art does not teach positional relationships of the substrate to the target and control of the rotation to be an integer which helps to suppress the distributions of the phase angle and transmittance in photomask blanks.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney G. McDonald whose telephone number is 571-272-1340. The examiner can normally be reached on M- Th with Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X. Nguyen can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Rodney G. McDonald
Primary Examiner
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RM
March 15, 2007